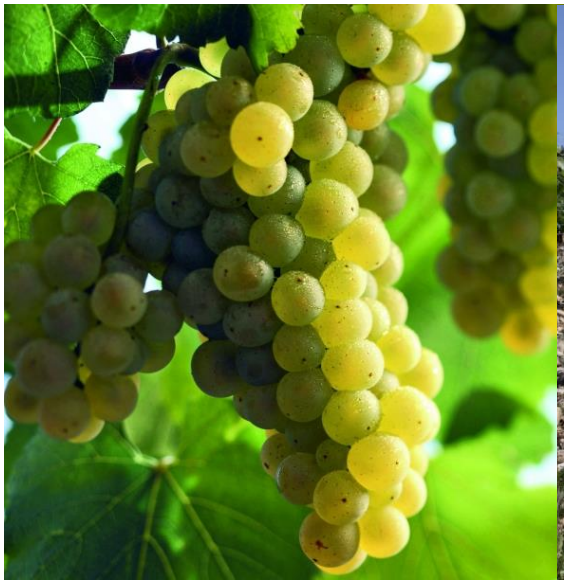
AWRI

The Australian Wine Research Institute







International Chardonnay Production and Performance

Dr Mark Krstic & Dr Peter Dry - Australian Wine Research Institute

Cooler Climate Chardonnay Symposium

Thursday 16 June 2016, Healesville

Presentation Outline

The Australian Wine Research Institute

- Origins and history
- International plantings
- Recent history and development in other countries
- Importance in Australia – Peter Bailey**
- Performance in Australia
- Idiosyncrasies
- Summary

Where does Chardonnay come from?

The Australian Wine Research Institute

- **Thought to originate from the Saône-et-Loire between Lyon and Dijon in eastern central France;**
- **Supposedly first mentioned in 1583 as Beaunois 'from Beaune' – but this also referred to other varieties;**
- **First reliable mention was 1685-90 in the village of Saint-Sorlin, today called La Roche-Vineuse in the Saône-et-Loire;**
- **Takes its name from the village of Chardonnay near Uchizy in the Mâconnais in southern Burgundy;**
- **Modern spelling did not come until 20th century (Chardenet, Chardonnet, Chardenay, etc)**

Robinson et at (2012)

Where does Chardonnay come from?

The Australian Wine Research Institute

- **Chardonnay was confused with Pinot Blanc, morphologically similar.**

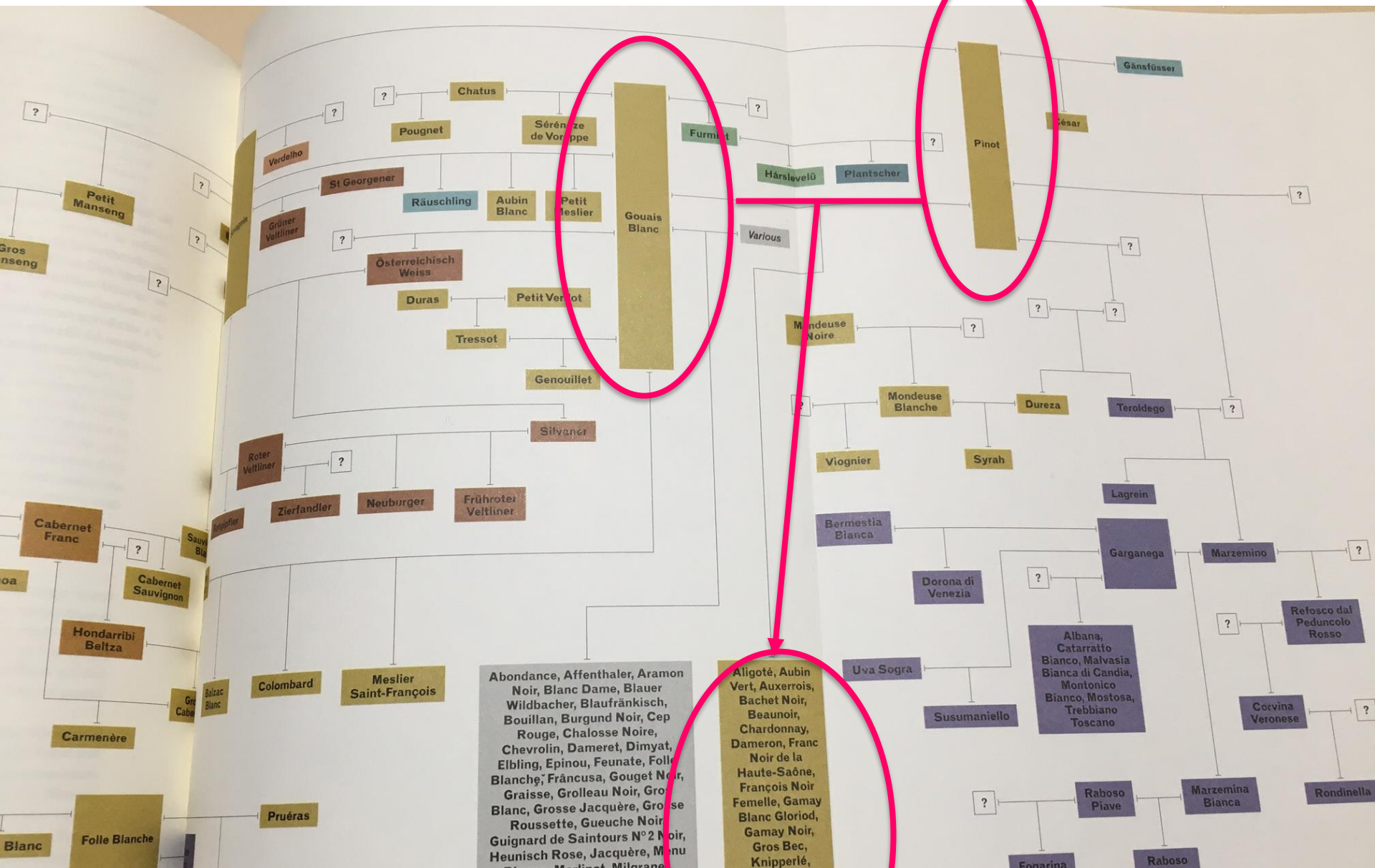
- **Natural Pinot x Gouais Blanc cross - (Obaideh – Lebanon/Syria)??**

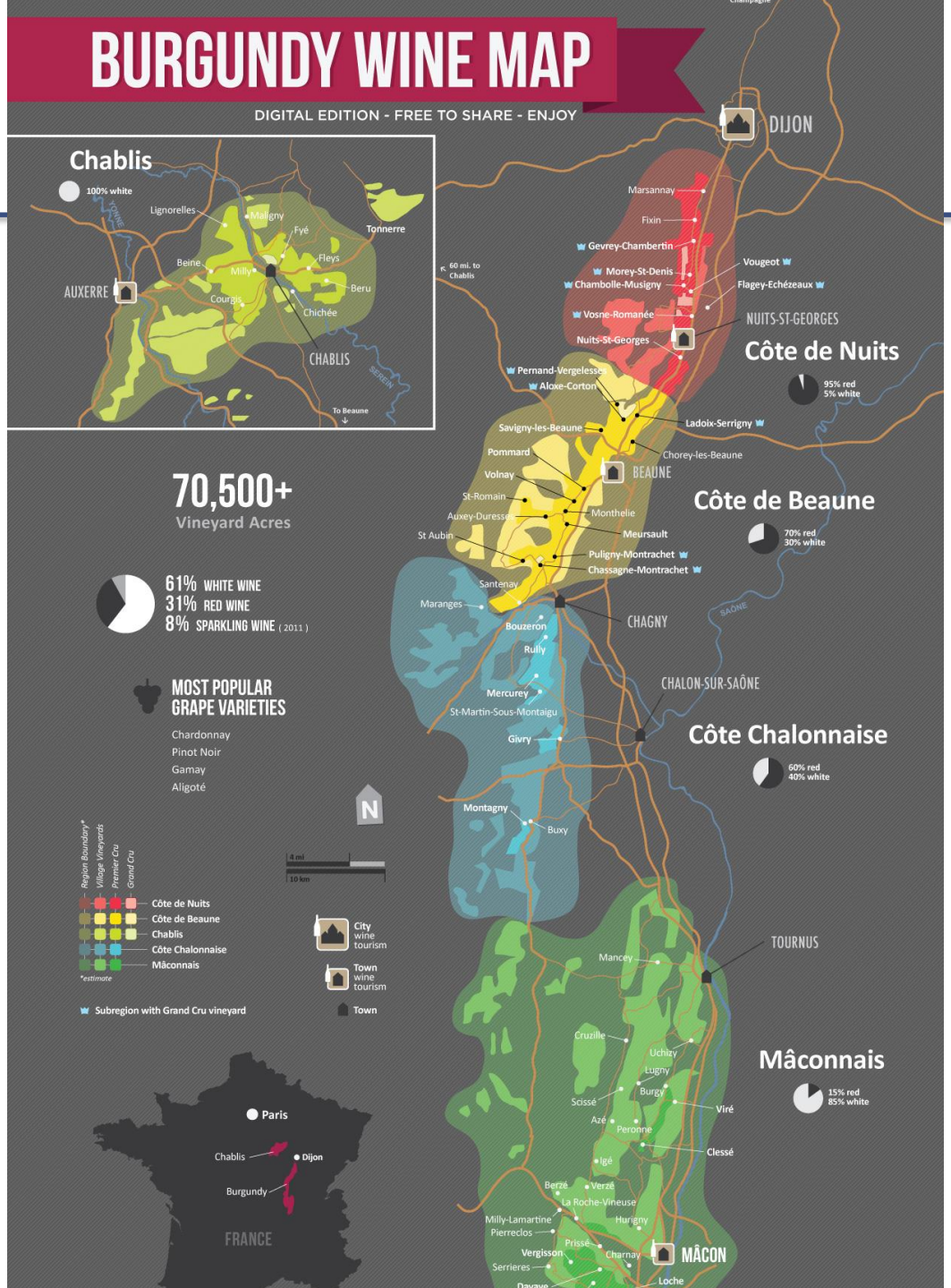


Robinson et at (2012)

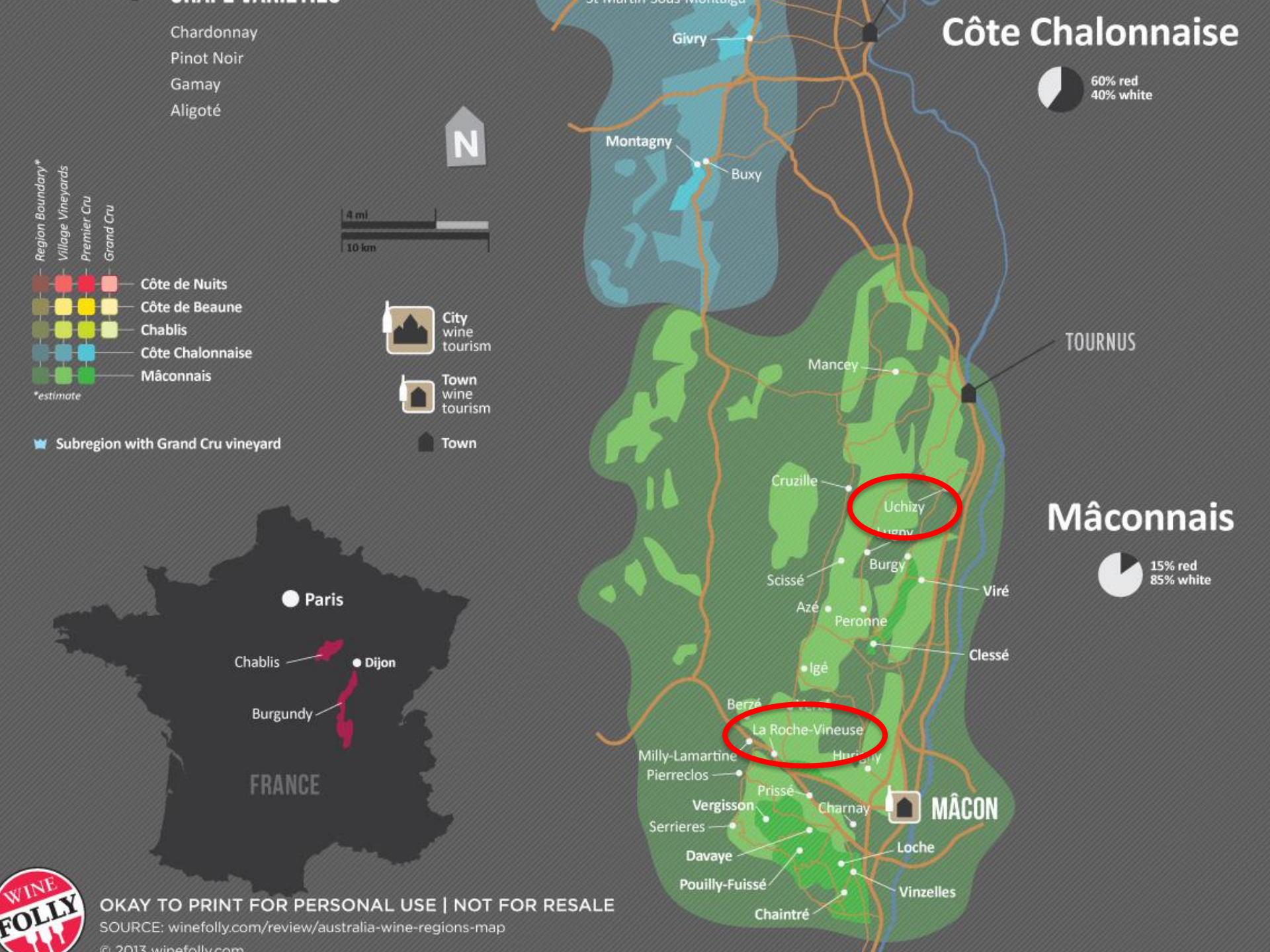
Where does Chardonnay come from?

The Australian Wine Research Institute





The Australian Wine Research Institute



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SOURCE: winefolly.com/review/australia-wine-regions-map

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La Roche - Vineuse

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Chardonnay near Uchizy

The Australian Wine Research Institute



Chablis - history

The Australian Wine Research Institute

- **Romans thought to have brought vines to region;**
- **In 865AD Monks of Saint-Martin-de-Tours made Chablis on the slopes of the Serein River. The wines were sold in Auxerre and destined for the markets of Paris;**
- **Records dating back to the mid-15th century of Chablis wine being shipped to England, Flanders and Picardy;**
- **The town of Chablis was destroyed in 1568 by the French Protestant (Huguenots). Then the French Revolution, invasions from Prussia, oidium, phylloxera, WW1 and WW2 - By the 1950s there were only 1,235 acres (500 ha) of vines planted in Chablis.**

Chablis - history

The Australian Wine Research Institute

- **Chardonnay was believed to be first planted in Chablis by the Monks (Cistercians) at Pontigny Abbey in the 12th century and from there spread south to the rest of the Burgundy region;**

- **The region became part of Burgundy in the 15th century when it was annexed by the Dukes of Burgundy;**

- **The accessible Seine river, via the nearby Yonne river, gave the Chablis wine producers a near monopoly on the lucrative Parisian market. In the 17th century, the English discovered the wine and began importing large volumes.**

Chablis – Les Clos Grand Cru

The Australian Wine Research Institute



Chablis – Les Clos Grand Cru

The Australian Wine Research Institute



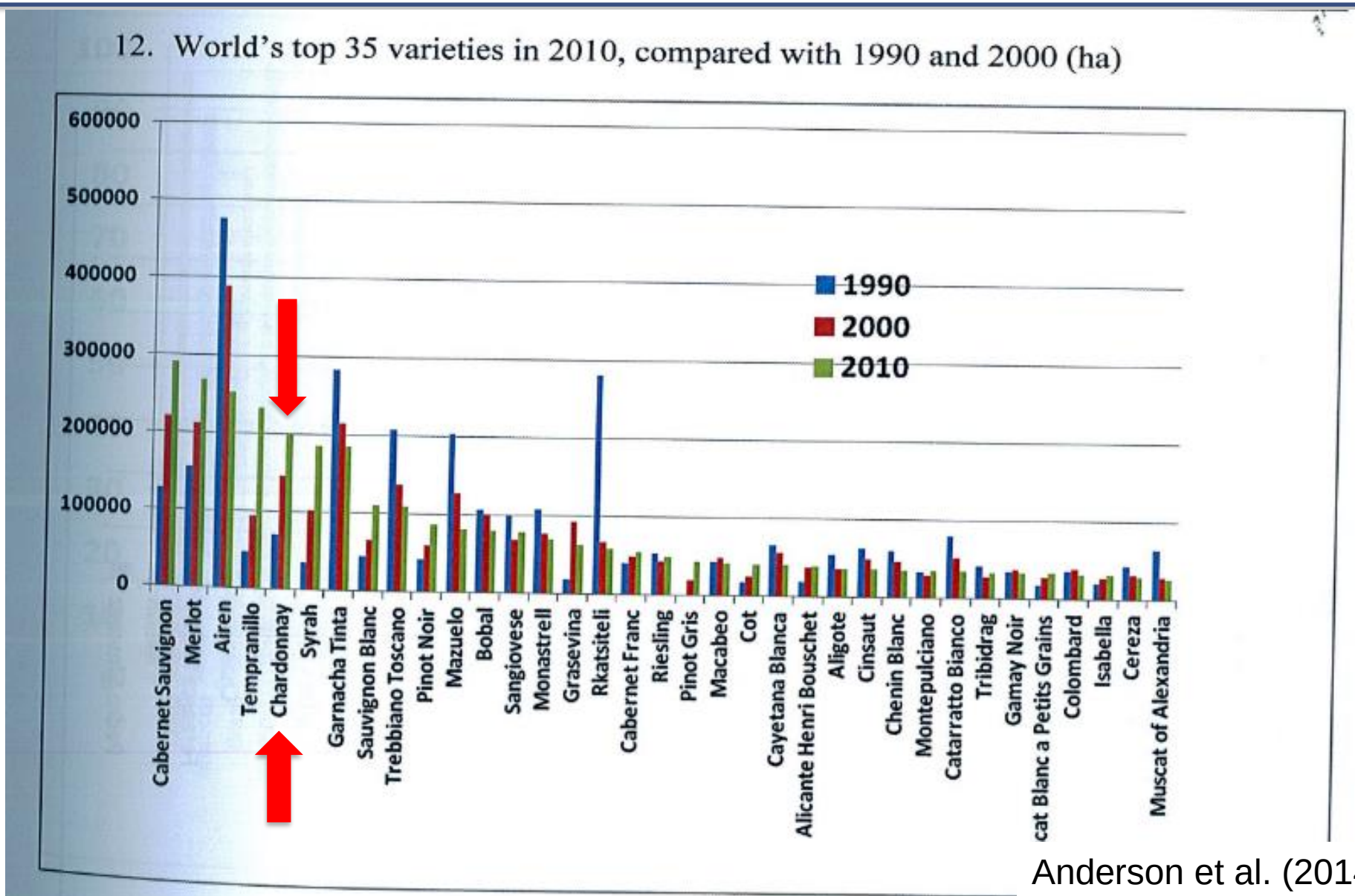
Chablis – Les Clos Grand Cru

The Australian Wine Research Institute



International Plantings of Chardonnay

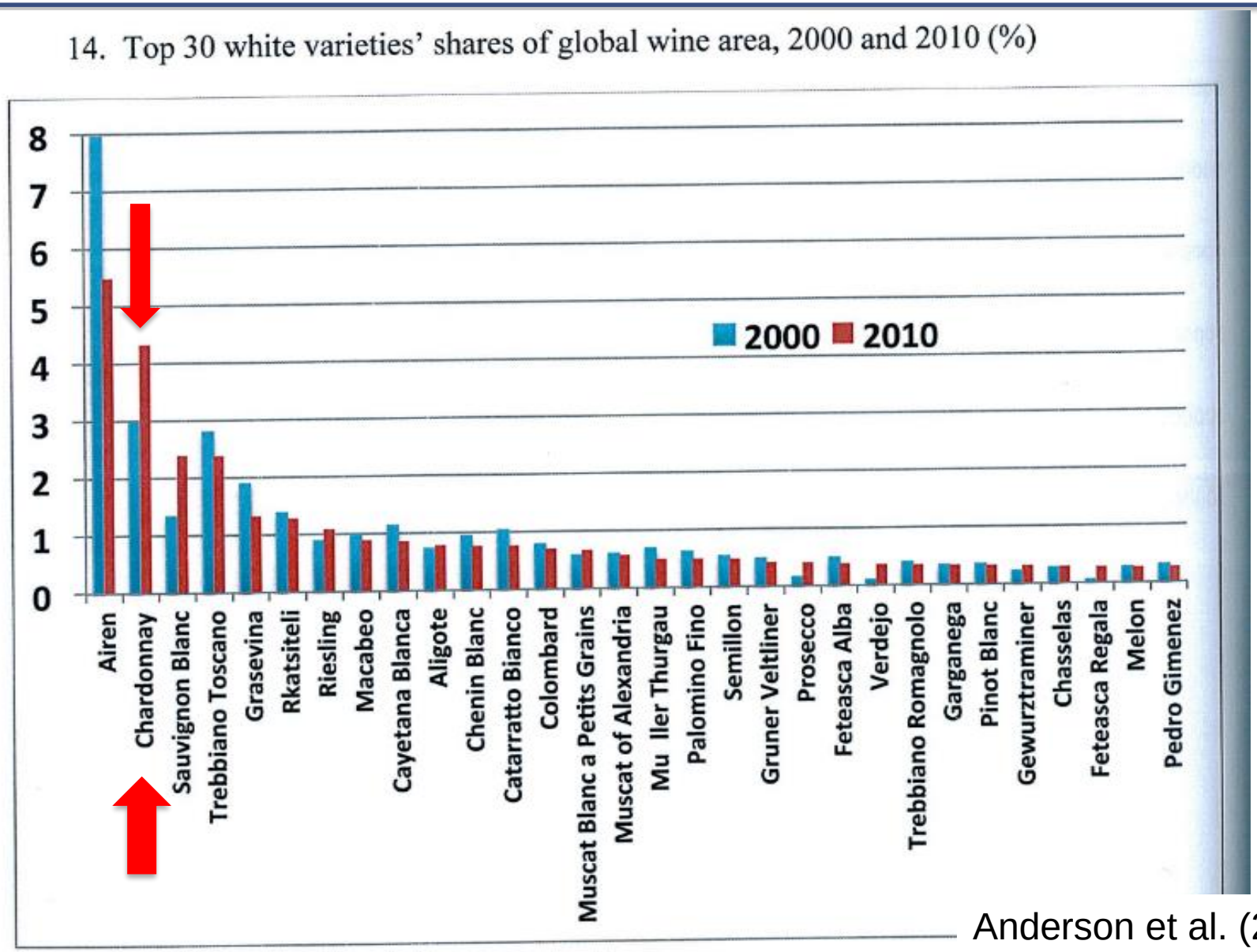
The Australian Wine Research Institute



Anderson et al. (2014)

International Plantings of Chardonnay

The Australian Wine Research Institute

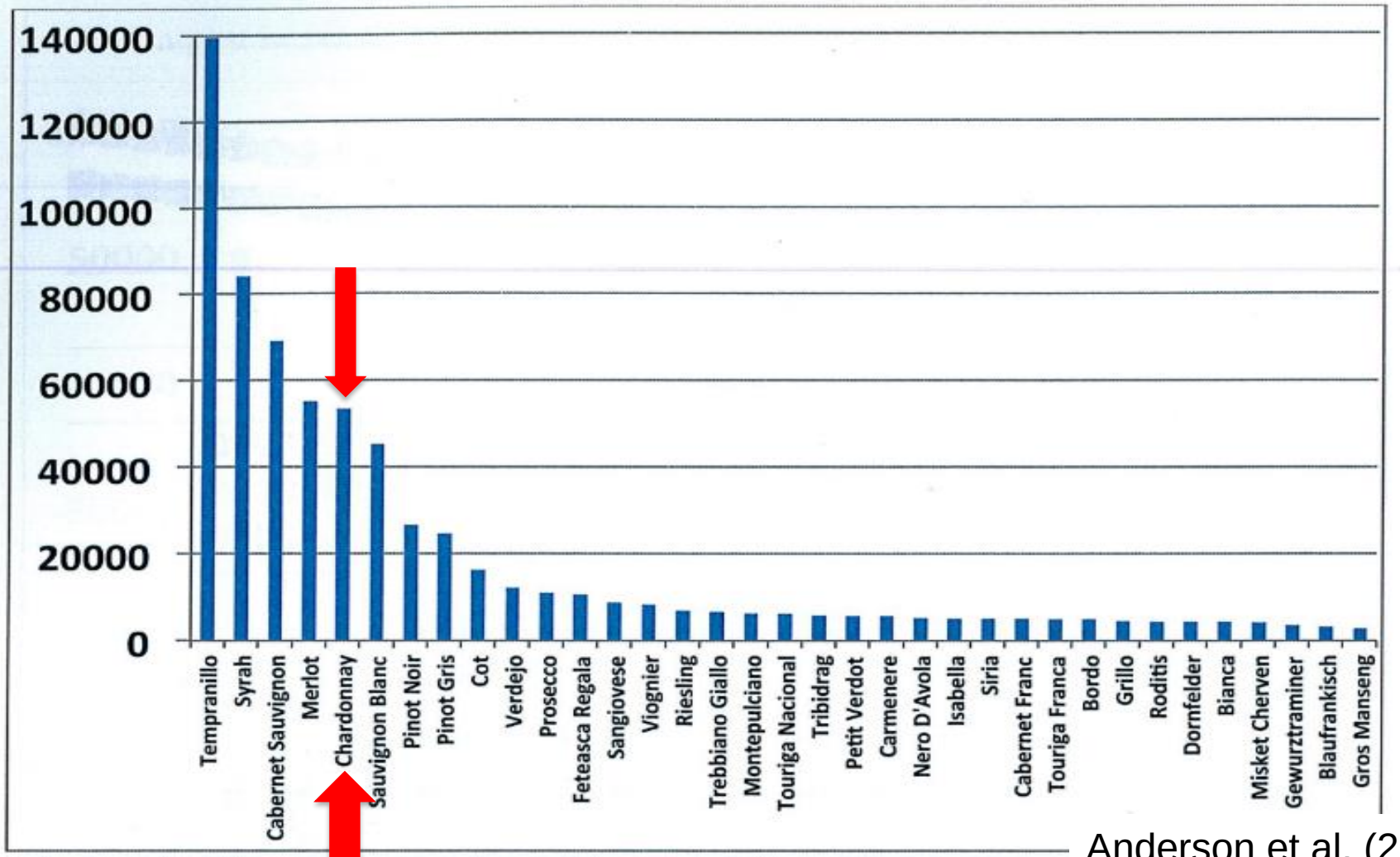


Anderson et al. (2014)

International Plantings of Chardonnay

The Australian Wine Research Institute

9. World's fastest-expanding winegrape varieties, 2000 to 2010 (ha)

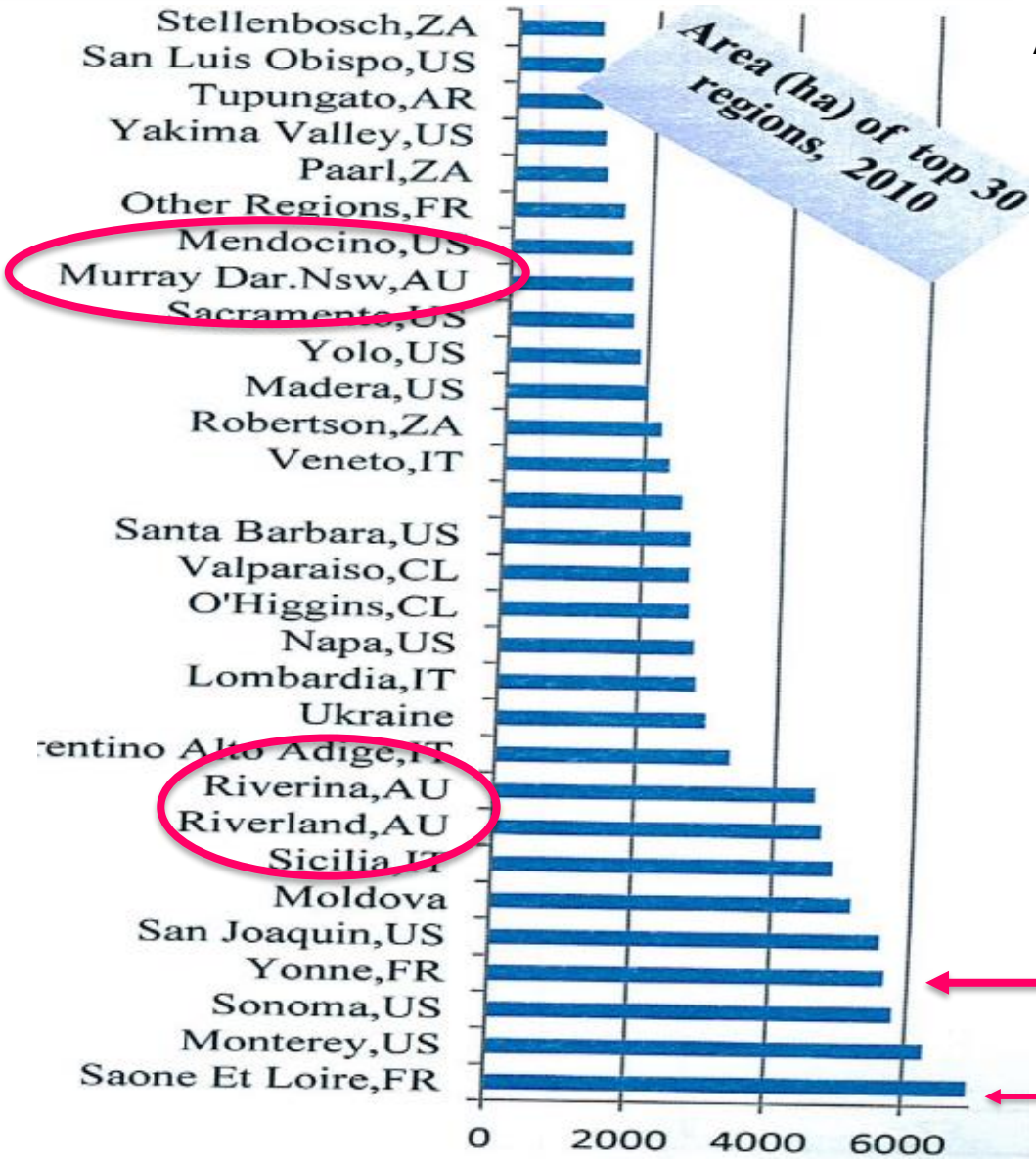


Anderson et al. (2014)

International Plantings of Chardonnay

The Australian Wine Research Institute

Anderson et al. (2014)



Chablis

Burgundy

International Plantings of Chardonnay 2010 Data

The Australian Wine Research Institute

	National area (ha)	Chardonnay share of nat. area %	Country share of global area %	Chardonnay ranking in country
Australia	27773	18	14	2
Chile	13082	12	6.6	2
France	44593	5	22.4	7
Italy	19709	3	9.9	
Moldova	5134	6	2.6	
NZ	3911	12	2	3
S. Africa	8278	8	4.2	5
Spain	6958	1	3.5	
USA	40846	18	20.5	1

Anderson et al. (2014)

Recent History and Distribution

France

The Australian Wine Research Institute



Champagne



Languedoc

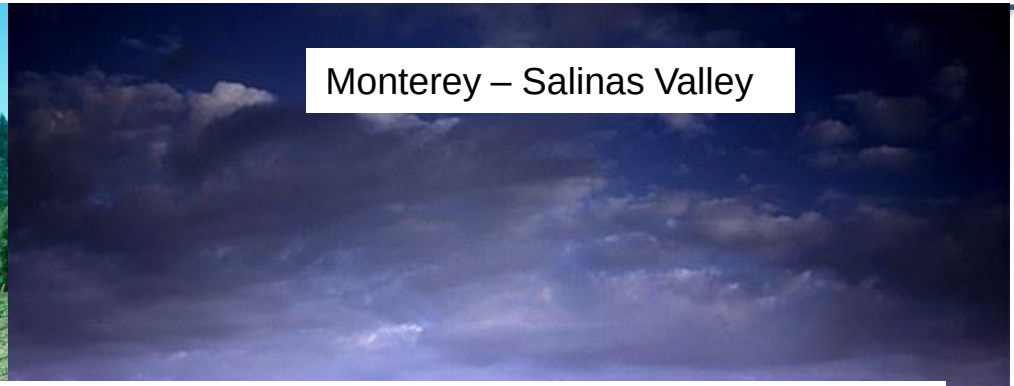
- **Approx. 7300 ha in 1958, 44800 in 2009; now Burgundy, Champagne and Languedoc biggest areas of Chardonnay.**

Recent History and Distribution

USA

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Sonoma – Russian River


Monterey – Salinas Valley

- **California: reached peak area of 38000 ha in 2003 since then slight decrease in area;**
- **Washington: number 1 white planted 3000 ha but Riesling is catching up fast.**


Santa Barbara, CA


Yakima – Washington State

Recent History and Distribution

Italy

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- **Mainly grown in north for sparkling eg Lombardy (particularly Franciacorta), Trento, Alto-Adige, Veneto.**

- **Surprisingly large areas in Sicily and Puglia (akin to Riverland, Riverina etc in Australia).**



Recent History and Distribution

South Africa

The Australian Wine Research Institute





- **Relatively small % of national area (Chenin Blanc, Colombard and Sauvignon Blanc much more important).**



Recent History and Distribution

UK

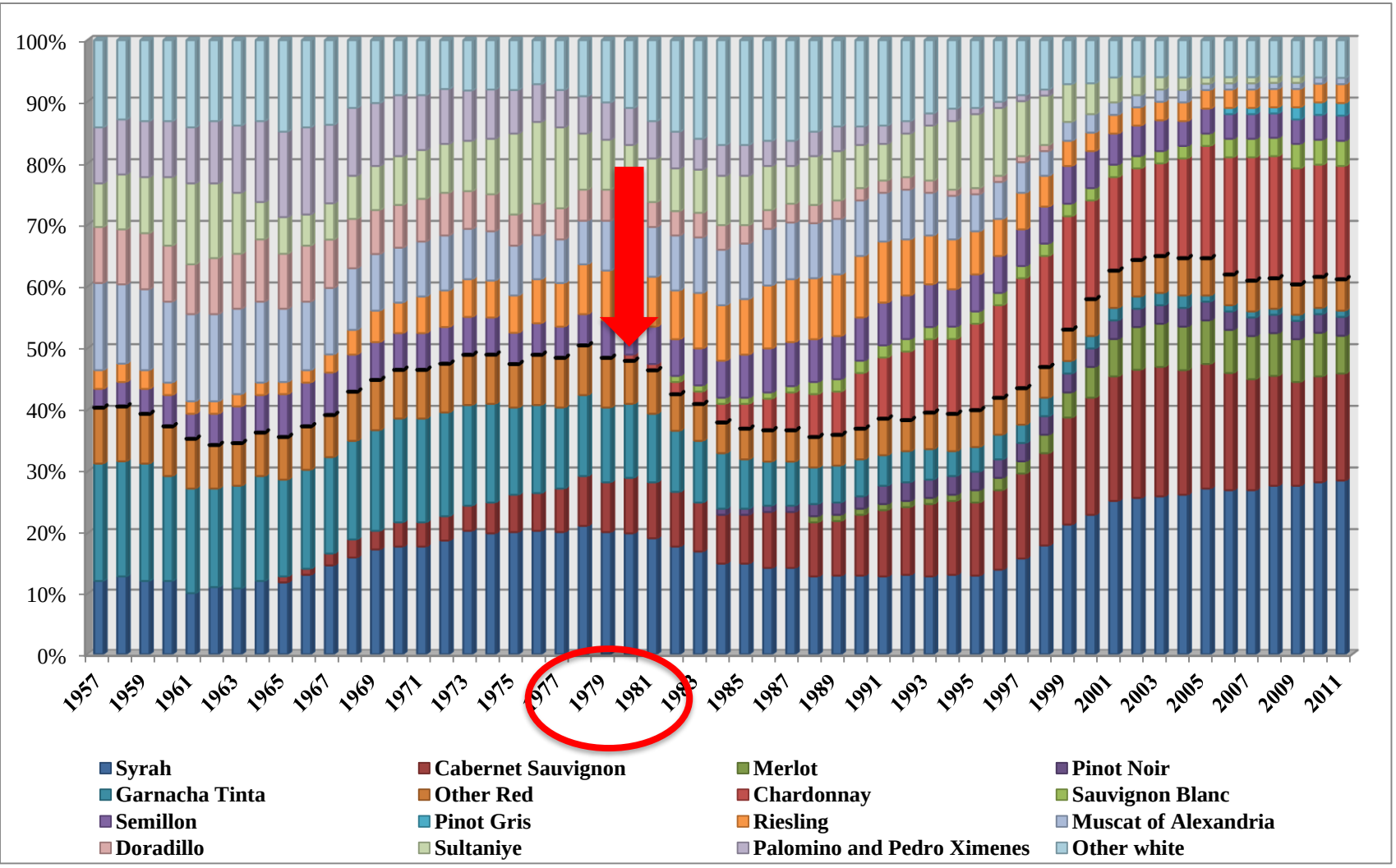
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- **Small but growing quickly - ~ 2,000ha, approximately 23% Chardonnay – mostly for sparkling wine.**

Varietal Share (%) since 1957 - Australia

The Australian Wine Research Institute



Chard.

Cab. S.

Shiraz

First Chardonnay in Australia?

Imports into variety collections and area

The Australian Wine Research Institute

- **CSIRO Merbein - CSIRO imported a number of Chardonnay clones in 1968 and 1969, including the Mendoza clone in 1968 (IC688025);**

- **SARDI - Database indicates that first clone that we now call the Mendoza clone was in 1969 & also the Davis OF clone which some think are the same. That was the followed by the I10 series from Davis starting 1973.**

- **ABS stats show Chardonnay plantings back in 1973 of 44 ha, growing to 1,600 ha in 1983, 6,100 ha in 1993, 24,000 ha in 2003, peaking at 32,000 in 2007 and in 2015 back to 21,400 ha.**

First Chardonnay in Australia?

Len Evans ANZ Complete Book of Wine 1973

The Australian Wine Research Institute

- NSW Dec 1971 68 acres (27.5ha) 46% non bearing area and a total of 16 growers;
- Mainly Hunter Valley and Mudgee;
- 1971 first varietal Chardonnay labelled 'Pinot Chardonnay' released by Tyrrells. First in Australia?
- Perhaps not!! See later

First Chardonnay in Australia?
Craigmoor Winery - Mudgee

The Australian Wine Research Institute

- 1832 - Chardonnay first imported into Australia by James Busby. Plants were divided between Sydney Botanical Gardens and Busby's estate “Kirkton” in the Hunter Valley;

- 1918 - Chardonnay cuttings were planted at Craigmoor Vineyards. Cuttings from Busby's original collection;

- 1971- Pieter van Gent made Chardonnay in 1971, only one hogshead - not enough to bottle. Thought to be the first time Chardonnay grape was made into a wine in Australia;

- 1972 - Craigmoor marketed straight Chardonnay under the Chardonnay label.

Is this the first varietal Chardonnay in Australia?

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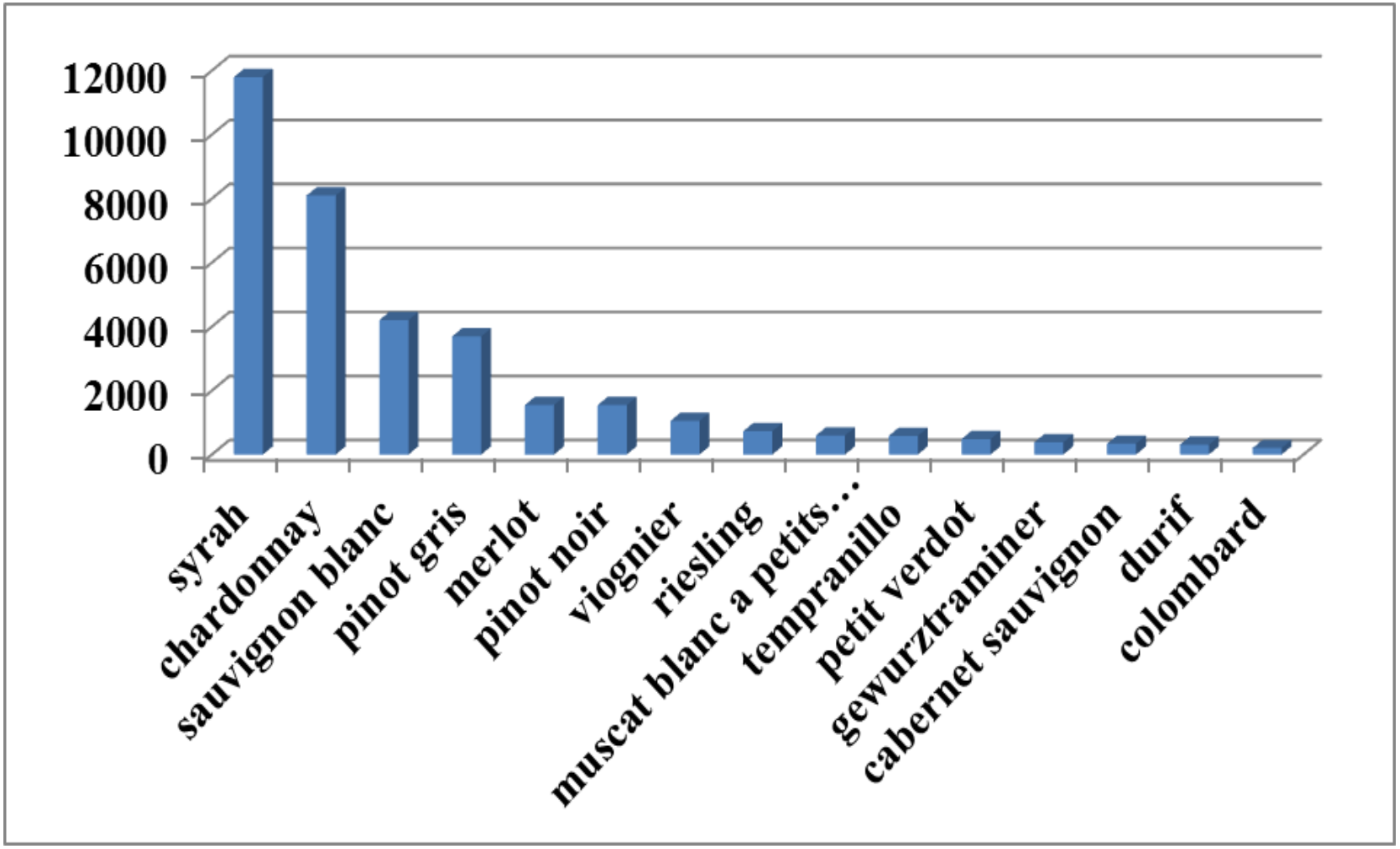




Rossetto Pinot Chardonnay 1969 vintage - won a silver medal at the Royal Adelaide Wine Show class 23 in 1969. That should make this wine the first Chardonnay in New South Wales if not Australia. The grapes came from John's own vineyard here in Bilbul. Pascal Guertin and John J Dal Broi (email 12 May 2016).

Change in bearing area for most-expanded varieties, Australia, 2001 to 2012 (ha)

The Australian Wine Research Institute



Chardonnay Performance in Australia

Langtons Classification

The Australian Wine Research Institute

- **Exceptional (2/21) – 9.5%**
  - **Giaconda, Beechworth**
  - **Leeuwin Estate Art Series, Margaret River**

- **Outstanding (2/53) – 3.8%**
  - **Penfolds Bin 144 Yattarna, multiregional blend**
  - **Pierro, Margaret River**

- **Excellent (4/65) – 6.2%**
  - **Lakes Folly, Hunter Valley**
  - **Mount Mary, Yarra Valley**
  - **Savaterre, Beechworth**
  - **Tyrells Vat 47, Hunter Valley**

- **SHIRAZ Comparison 50%**



Chardonnay Performance in Australia

Jancis Robertson MW

The Australian Wine Research Institute

- **The new Pulignys of Australia – 15 October 2015**

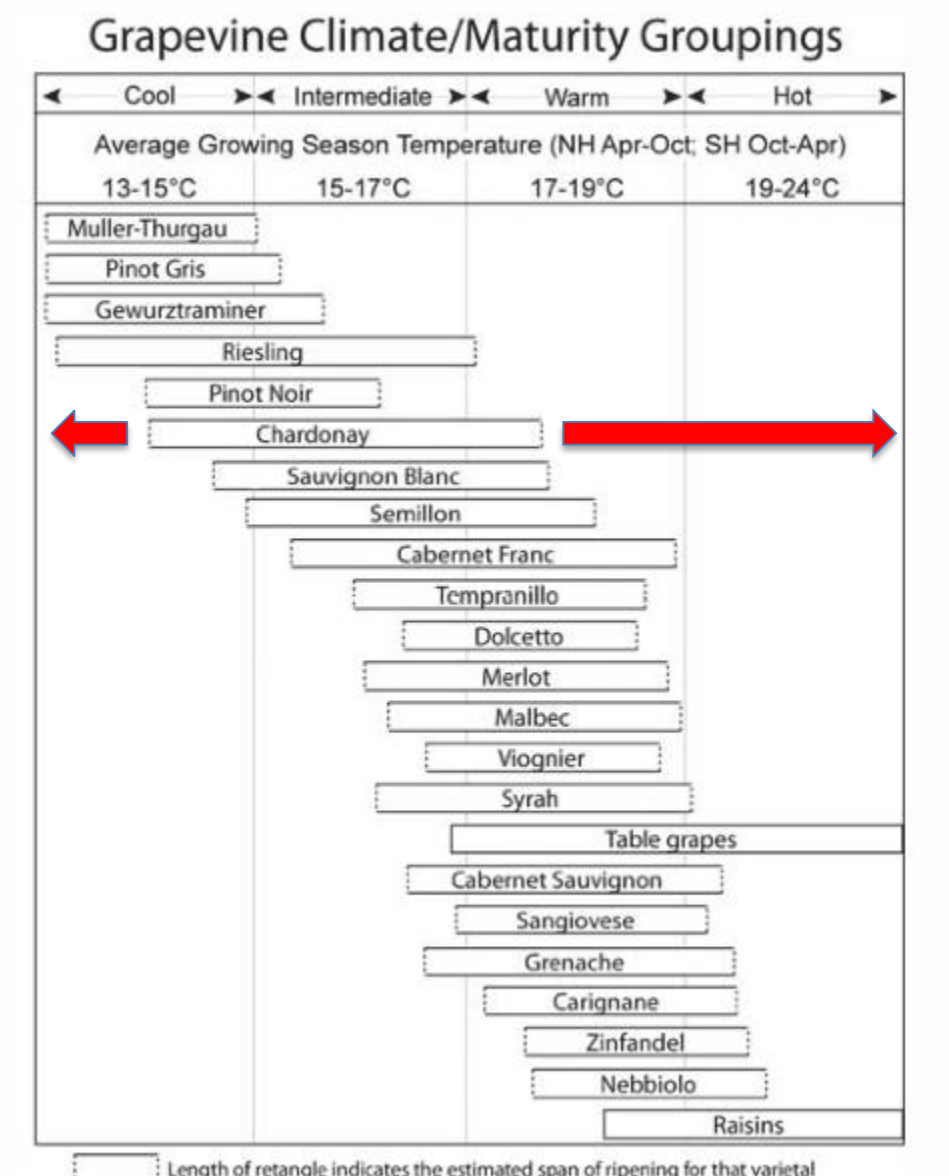
- **“But such progress towards finesse has been made by Australia's best Chardonnay practitioners recently that I am now looking for serious alternatives to fine white burgundy in the cooler reaches of Australia”;**

- **“.. from about 2012 Australia has been producing a raft of truly world-class Chardonnay, very much in the savoury, steely, super-crisp style of refined white burgundy, but often with more apparent potential for future development than a typical white burgundy”.**



Climatic Adaptability - Elasticity

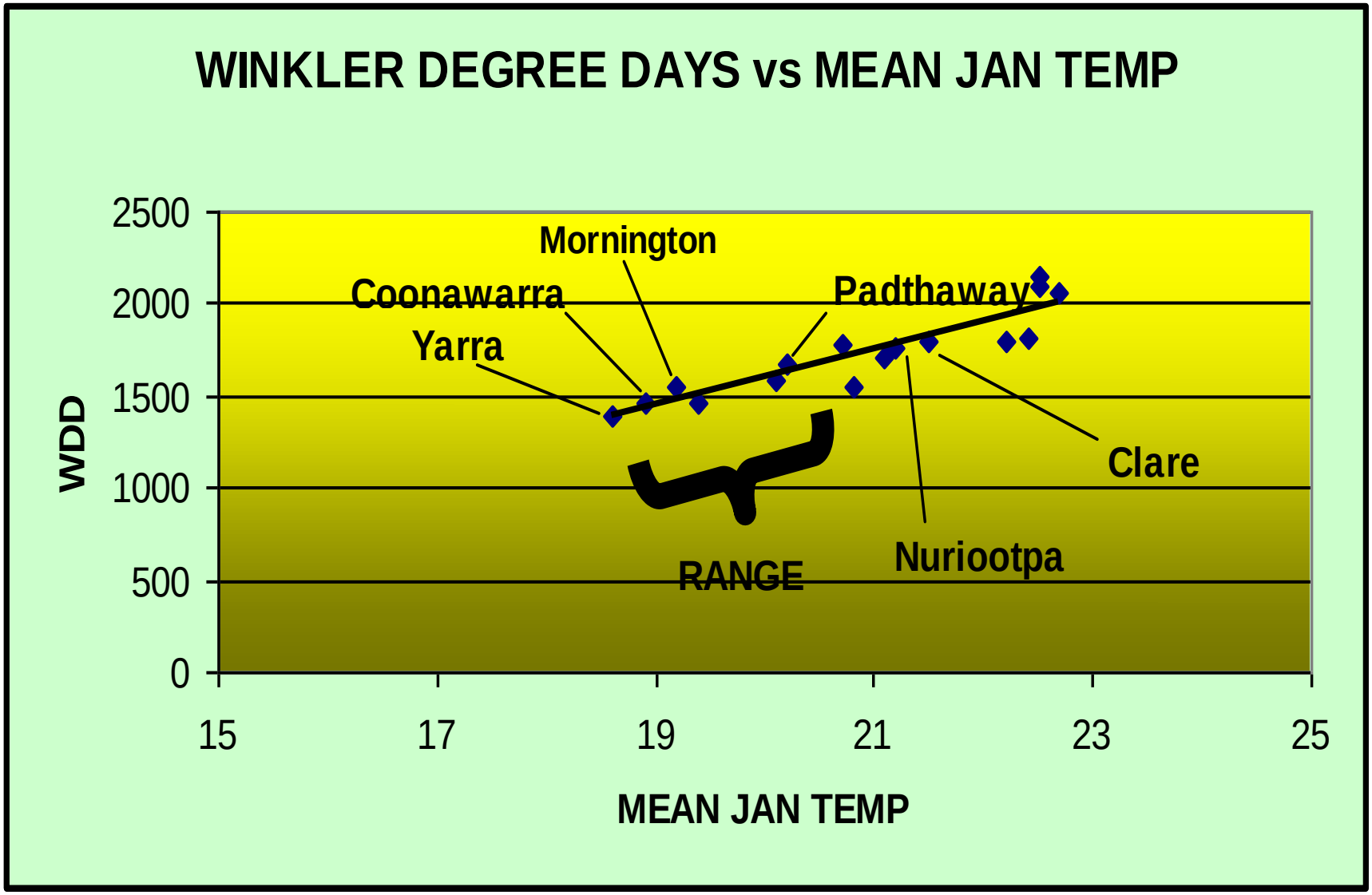
The Australian Wine Research Institute



Jones et al. (2014)

Climatic Adaptability - Elasticity

The Australian Wine Research Institute



Chardonnay Idiosyncrasies

The Australian Wine Research Institute

- Early budburst – susceptible to spring frost;
- Early ripening and generally quite productive;
- Suited to soils with high limestone/calcareous clay;
- Susceptible to powdery mildew and grapevine yellows;
- Suffers from fruit set issues (coulure & millerandage) – especially Mendoza clone – ‘hen & chicken’;
- Clones….Nick Dry….AVIA 37 clones, 3 extra Yalumba via ENTAV, others??

Chardonnay Idiosyncrasies

The Australian Wine Research Institute

- **Relatively thin skinned and susceptible to Botrytis;**
- **Morphologically similar to Pinot Blanc – some historical confusion;**
- **Many synonynms:**

- **Arboisier, Arnaison blanc, Arnoison, Aubain, Aubaine, Auvergnat blanc, Auvernas, Auvernas blanc, Auvernat blanc, Auxeras, Auxerras blanc, Auxerrois blanc, Auxois, Auxois blanc, Bargeois blanc, Beaunois, Biela Klevanjika, Blanc de Champagne, Blanc de Cramant, Breisgauer Suessling, Breisgauer Sussling, Burgundi Feher, Chablis, Chardenai, Chardenay, Chardenet, Chardennet, Chardonay, Chardonnet, Chatenait, Chatey Petit, Chatte, Chaudenay, Chaudenet, Chaudent, Clävner, Clevner Weiss, Cravner, Epinette, Epinette blanc, Epinette blanche, Epinette de Champagne, Ericey blanc, Feher Chardonnay, Feherburgundi, Feinburgunder, Gamay blanc, Gelber Weissburgunder, Gentil blanc, Grosse Bourgogne, Klawner, Klevanjka Biela, Klevner, Lisant, Luisant, Luizannais, Luizant, Luzannois, Maconnais, Maurillon blanc, Melon blanc, Melon D'Arbois, Meroué,[5] Moreau blanc, Morillon blanc, Moulon, Noirien blanc, Obaideh, Petit Chatey, Petit Sainte-Marie, Petite Sainte Marie, Pineau blanc, Pino Sardone, Pino Shardone, Pinot Blanc à Cramant, Pinot Blanc Chardonnay, Pinot Chardonnay, Pinot de Bourgogne, Pinot Giallo, Pinot Planc, Plant de Tonnerre, Romere, Romeret, Rouci Bile, Rousseau, Roussot, Ruländer Weiß, Sainte Marie Petite, Sardone, Shardone, Shardonne, Später Weiß Burgunder, Weiß Burgunder (normally refers to Pinot blanc), Weiß Clevner, Weiß Edler, Weiß Elder, Weiß Klewner, Weiß Silber, Weißedler, Weißer Clevner, Weißer Rulander**

Acknowledgements and References

The Australian Wine Research Institute

- Dr Peter Dry – co-author

- Source: Anderson, K. (2013) Which Winegrape Varieties are Grown Where? A Global Empirical Picture: University of Adelaide Press. freely downloadable at www.adelaide.edu.au/press/titles/winegrapes)

- Winegrapes Robinson et al. 2012

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- Wine Australia – Regional Funding

Wine Australia for Australian Wine

